

ABSTRACT

The present invention provides novel quaternary amino-functional chalcone derivatives and analogues exhibiting interesting antibacterial activity. The compounds have the general formula $(Y^1)_m-Ar^1(X^1)-C(=O)VAr^2(X^2)-(Y^2)_p$ (I), wherein V designates $-CH_2-CH_2-$, $-CH=CH-$ or $-C\equiv C-$; Ar¹ and Ar² independently are aryl and heteroaryl; m=0, 1, 2, p=0, 1, 2, m+p>0; each Y¹ and Y² independently is $-Z-N^+(R^1)(R^2)R^4 Q^-$ (A); $-NR^3-Z-N^+(R^1)(R^2)R^4 Q^-$ (B), or $-O-Z-N^+(R^1)(R^2)R^4 Q^-$ (C), R¹, R², R³, R⁴, X¹, X² are substituents, and Q⁻ is an anion.

5 The present invention also relates to the compounds for use as pharmaceutically active agents, in particular against bacterial infections (such as Gram-negative and Gram-positive bacteria,
10 including antibiotic-sensitive or resistant strains), and in the medical treatment of bacterial infections in mammals.